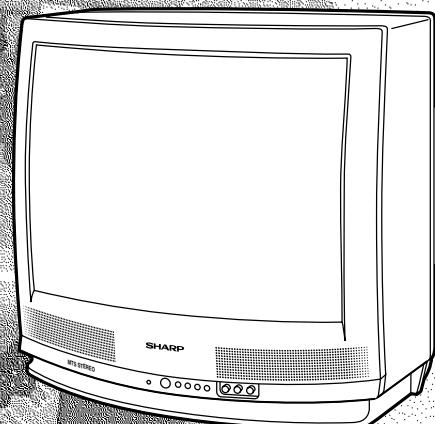




SHARP®

COLOR TELEVISION MODEL **20R-S100**

■ OPERATION MANUAL ■



As an ENERGY STAR® Partner, SHARP has determined that this product meets the ENERGY STAR® guidelines for energy efficiency. ENERGY STAR® is a U.S. registered trademark.

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This operating manual includes basic operating instructions in Spanish and French.
SPANISH is on page 8, 41.
FRENCH is on page 9.

7346 GJ



Welcome to the SHARP Family. We are pleased that you are now the owner of a SHARP Color Television – built for outstanding quality, reliability and performance.

Every SHARP Color Television set is tuned and adjusted for proper color and sound, and has passed through the most stringent quality control tests at the factory. We have prepared this OPERATION MANUAL so that you may adjust the picture and color to your personal viewing preference.

We sincerely hope that you receive the greatest satisfaction and enjoyment from your new SHARP Color Television set for years to come.

Please read these instructions carefully, and keep them handy for your future reference.

IMPORTANT

To aid reporting in case of loss or theft, please record the TV's model and serial numbers in the space provided. The numbers are located at the rear of the TV.

Model No.:

Serial No.:

Important Information

There are two important reasons for prompt warranty registration of your new SHARP television set, using the REGISTRATION CARD packed in with the set.

FIRST – WARRANTY

This is to assure that you will immediately receive the full consumer benefit of the parts, service and labor warranty applicable to your purchase.

SECOND – CONSUMER PRODUCT SAFETY ACT

To assure that you will promptly receive any safety notification on inspection, modification or recall that SHARP may be required to give under the 1972 Consumer Product Safety Act. PLEASE READ CAREFULLY THE IMPORTANT "LIMITED WARRANTY" CLAUSE ON THE LAST PAGE.

WHAT IS ENERGY STAR®

TVs and VCRs use energy both when they are on and when they are off. Americans spend more than \$1 billion a year on energy consumed by TVs and VCRs when they are not in use. The new ENERGY STAR® models will reduce that energy "leakage" by up to 75 percent. Ultimately, this will mean more than \$500 million a year in energy savings for consumers.

The energy savings will help reduce the burning of fossil fuels and the related carbon dioxide pollution that contributes to global warming. If every American family replaced their TVs and VCRs with ENERGY STAR® models, it would reduce carbon dioxide emissions by five million tons every year — equivalent to eliminating the pollution from more than one million cars.

By using ENERGY STAR® products, you will save money on your electric bills and use less energy. That makes good economic sense and it's good for our environment.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO WET LOCATIONS.



The lightning flash with arrowhead within a triangle is intended to tell the user that parts inside the product are a risk of electric shock to persons.

The exclamation point within a triangle is intended to tell the user that important operating and servicing instructions are in the papers with the appliance.

"Note to CATV system installer: This reminder is provided to call the CATV system installer's attention to Article 820-40 of the National Electrical Code that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical."



Important Information (Continued)

WARNING – FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

PRODUCT DISPOSAL

This product utilizes a Cathode Ray Tube (CRT) containing lead and tin lead solder. Disposal of these materials may be regulated due to environment considerations. For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance: www.eiae.org

Important Safeguards

CAUTION: Please read all of these instructions before you operate your television and save these instructions for later use.

Electrical energy can perform many useful functions. This unit has been engineered and manufactured to assure your personal safety. BUT IMPROPER USE CAN RESULT IN POTENTIAL ELECTRICAL SHOCK OR FIRE HAZARDS. In order not to defeat the safeguards incorporated in this equipment, observe the following basic rules for its installation, use and servicing.

1. Unplug this television equipment from the wall outlet before cleaning.
2. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
3. Do not use attachments not recommended by the television equipment manufacturer as they may cause hazards.
4. Do not use this television equipment near water — for example, near a bathtub, washbowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool, etc.
5. Do not place this equipment on an unstable cart, stand, or table. The television equipment may fall, causing serious injury to a child or an adult, and serious damage to the equipment. Use only with a cart or stand recommended by the manufacturer or sold with the television equipment.
6. Television equipment and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the equipment and cart combination to overturn.
7. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.
8. Slots and openings in the cabinet and the back or bottom are provided for ventilation. To insure reliable operation of the television equipment and to protect it from overheating, these openings must not be blocked or covered. This television equipment should not be placed in a built-in insulation such as a bookcase unless proper ventilation is provided.
9. The openings should never be covered with a cloth or other material, and the bottom openings should not be blocked by placing the television equipment on a bed, sofa, rug, or other similar surface. This television equipment should never be placed near or over a radiator or heat register.
10. This television equipment should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your television dealer or local power company.

For television equipment designed to operate from battery power, refer to the operating instructions.

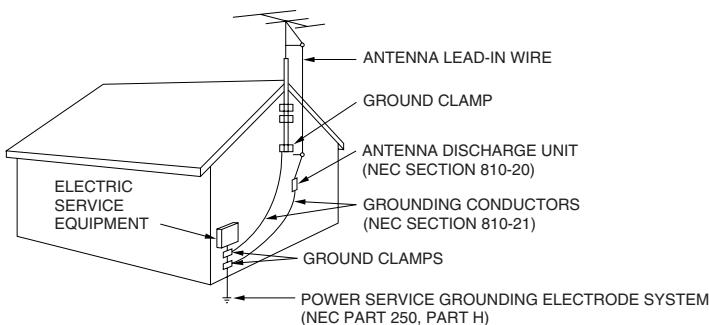
11. As a safety feature, television equipment is equipped with a 2-wire polarized plug (one plug blade bigger than the other). The 2-wire polarized plug will fit only one way into the power outlet.
If the plug does not fit, ask your electrician to replace your obsolete outlet. Do not modify the plug and defeat this safety feature.
12. Do not allow anything to rest on the power cord. Do not locate this television equipment where the cord will be abused by persons walking on it.
13. Follow all warnings and instructions marked on the television equipment.



Important Safeguards (Continued)

14. If an outside antenna is connected to the television equipment, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

EXAMPLE OF ANTENNA GROUNDING
ACCORDING TO NATIONAL ELECTRICAL CODE.

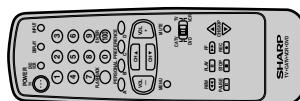


NEC - NATIONAL ELECTRICAL CODE

15. For added protection for this television equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the equipment due to lightning and power-line surges.
16. An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
17. Do not overload wall outlets and extension cords as this can result in fire or electric shock.
18. Never push objects of any kind into this television equipment through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the television equipment.
19. Do not attempt to service this television equipment yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
20. Unplug this television equipment from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - A. When the power cord or plug is damaged or frayed.
 - B. If liquid has been spilled into the television equipment.
 - C. If the television equipment has been exposed to rain or water.
 - D. If the television equipment does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the television equipment to normal operation.
 - E. If the television equipment has been dropped or the cabinet has been damaged.
 - F. When the television equipment exhibits a distinct change in performance — this indicates a need for service.
21. Upon completion of any service or repairs to this television equipment, ask the service technician to perform routine safety checks to determine that the television is in safe operating condition.
22. When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.



Supplied Accessories



Infrared Remote Control/Part Number
RRMCG1626CESA



Size AA
Dry Batteries

Before Operating Your Television

Location

- For normal operation, your TV should be located in an area of the room where cool adequate ventilation is provided. Do not place the back of the television set in a place where free airflow will be restricted.
- Any magnetic force may disturb the color picture. Make sure that magnets, electric clocks, toys using magnets or any other magnetic substance, such as iron are kept well away from this TV set.

Power

Your TV operates on 120 Volts, 60 Hertz (normal household current) and has a polarized plug. If you are unable to insert the plug fully into the outlet, try reversing the plug. Should it fail to fit, contact an electrician. Do not defeat the safety feature of the polarized plug.

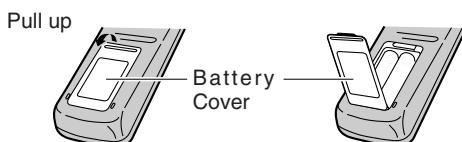
Note:

- If the set will not be used for a long period, such as during a vacation, unplug the set from the wall outlet to economize power. (If the TV set is plugged in, a slight current still flows, even with the POWER BUTTON in the OFF position.)
- Lines and other noise may appear in TV broadcast images when an FM tuner or radio is located near the TV and both radio and TV broadcasts are being received. Should such noise appear, turn off either the TV or the radio.
- If you are listening to an AM broadcast, turn the TV off. AM broadcast signals may not be received due to the interference of the TV.

Before using the television, prepare the Remote Control

To use the remote control, insert batteries first.

Insert the batteries



- With your thumbnail, pull up the slit as indicated by the arrow to remove the back cover. Insert two batteries (size "AA"). Be sure to match the battery \oplus/\ominus terminals with the \oplus/\ominus marks inside the compartment.

Antenna Connections

Antennas

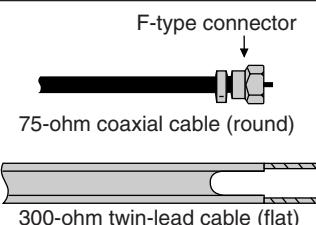
- The antenna requirements for good color television reception are more important than those for black & white television reception. For this reason, a good quality outdoor antenna is strongly recommended.

The following is a brief explanation of the type of connections that are provided with the various antenna systems:



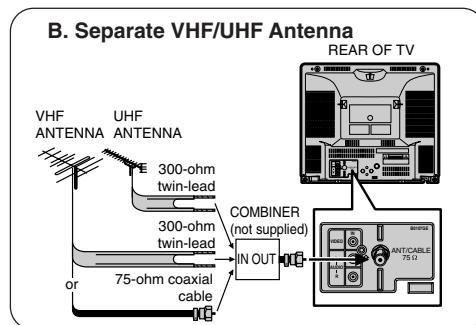
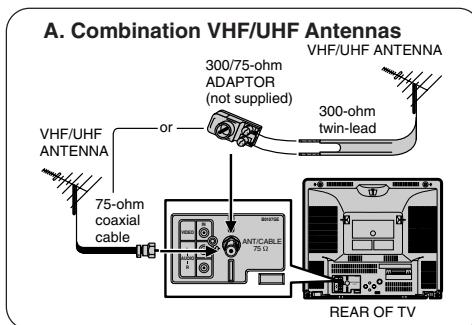
Antenna Connections (Continued)

1. A 75 ohm system is generally a round cable with F-type connector that can easily be attached to a terminal without tools (not supplied).
2. A 300 ohm system is a flat "twin-lead" cable that can be attached to a 75 ohm terminal through a 300-75 ohm ADAPTOR (not supplied).



OUTDOOR ANTENNA CONNECTION

- Use one of the following two diagrams if you connect an outdoor antenna.
A: Using a VHF/UHF combination outdoor antenna.
B: Using separate VHF and/or UHF outdoor antenna.
- Connect an outdoor antenna cable lead-in to the COAXIAL CABLE CONNECTOR on the rear of the TV set.



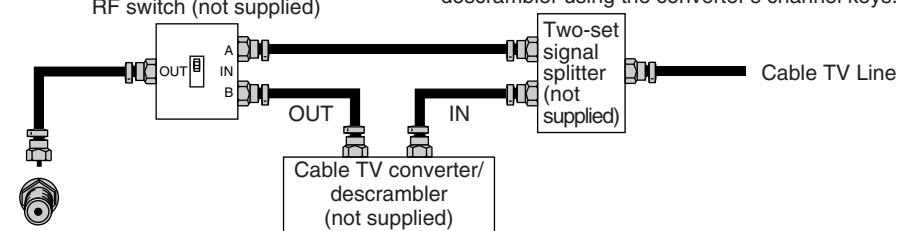
CABLE TV (CATV) CONNECTION

- A 75 ohm coaxial cable connector is built into the set for easy hookup. When connecting the 75 ohm coaxial cable to the set, screw the 75 ohm cable to the COAXIAL CABLE CONNECTOR.
- Some cable TV companies offer "premium pay channels". Since the signals of these premium pay channels are scrambled, a cable TV converter/descrambler is generally provided to the subscriber by the cable TV company. This converter/descrambler is necessary for normal viewing of the scrambled channels. (Set your TV on channel 3 or 4. Typically one of these channels is used. If this is unknown, consult your cable TV company.) For more specific instructions on installing cable TV, consult your cable TV company. One possible method of utilizing the converter/descrambler provided by your cable TV company is explained below.

Please note: RF switch equipped with position A/B (not provided) is required.

"A" position on the RF switch (not supplied) : You can view all unscrambled channels using the TV's channel keys.

"B" position on the RF switch (not supplied) : You can view the scrambled channels via the converter/descrambler using the converter's channel keys.



Note:

- Consult your SHARP Dealer or Service Center for the type of splitter, RF switch or combiner that might be required.

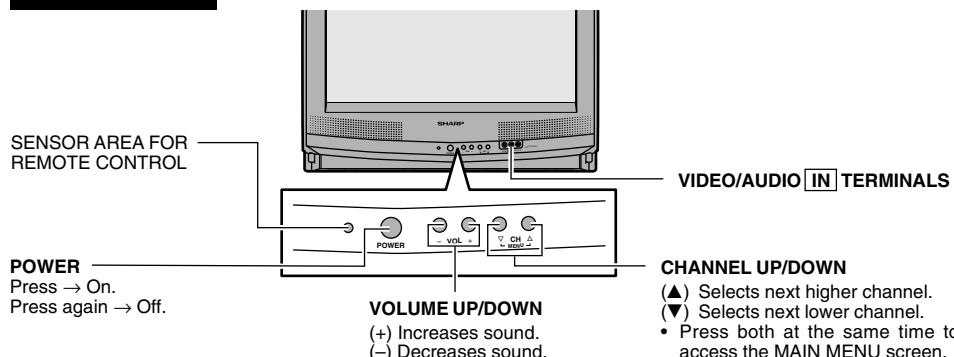


Quick Reference Control Operation

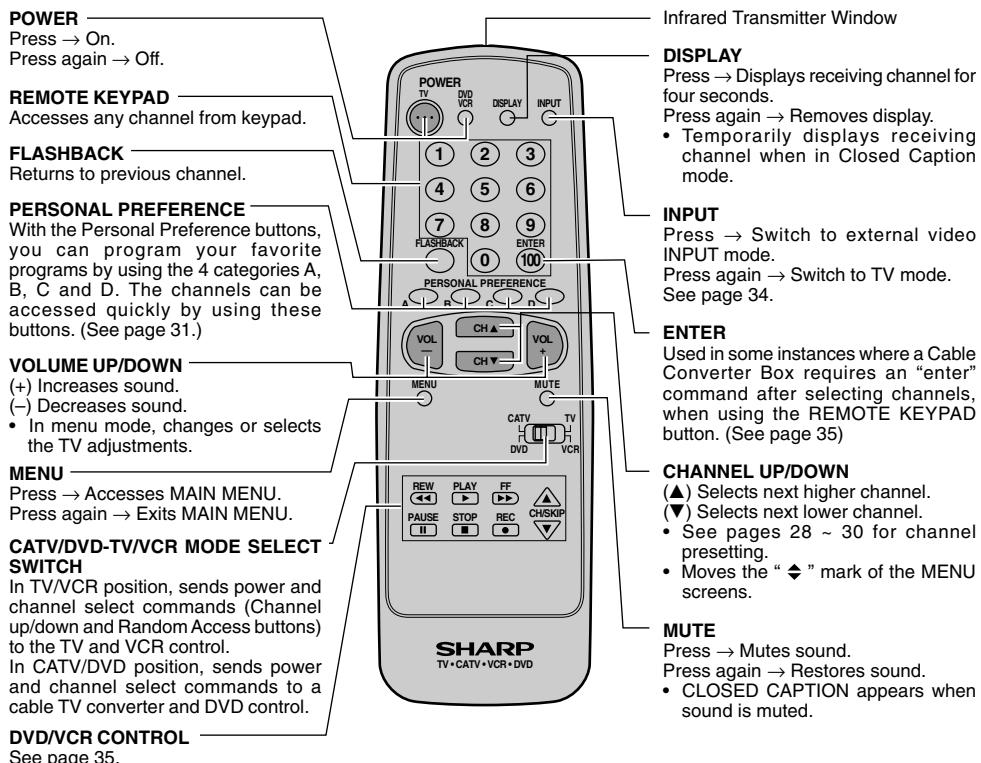
■ Location of Controls

(ENGLISH)

Front Panel



Basic Remote Control Functions



Note:

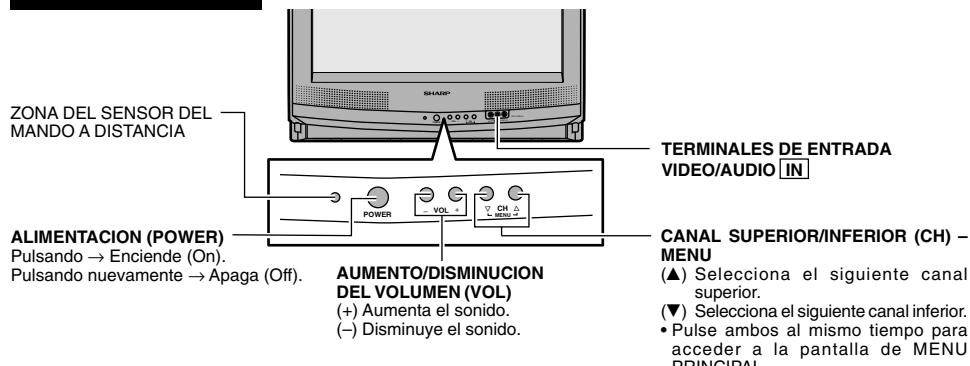
- The above shaded buttons on the Remote Control glow in the dark. To use the glow-in-the-dark display on the remote control, place it under a fluorescent light or other lighting.
- The phosphorescent material contains no radioactive or toxic material, so it is safe to use.
- The degree of illumination will vary depending on the strength of lighting used.
- The degree of illumination will decrease with time and depending on the temperature.
- The time needed to charge the phosphorescent display will vary depending on the surrounding lighting.
- Sunlight and fluorescent lighting are the most effective when charging the display.



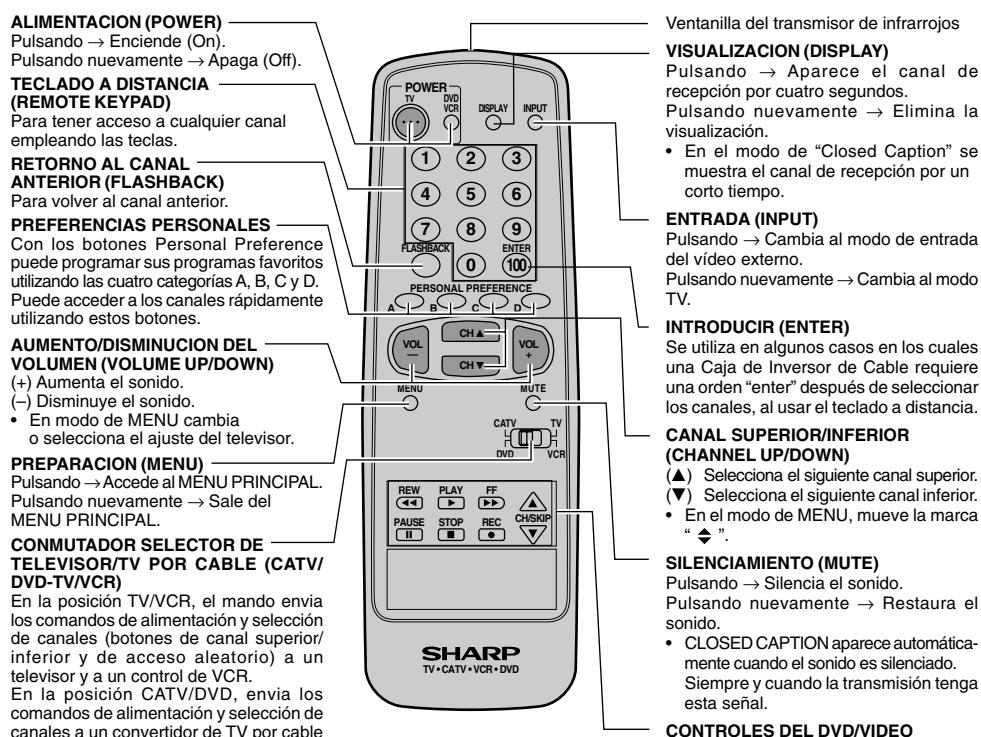
Referencia rápida de los controles de operación

■ Ubicación de los controles (ESPAÑOL)

Panel Delantero



Funciones Basicas Del Control Remoto



Note:

- Los botones que arriba pueden verse sombreados en el Control Remoto lucen en la oscuridad. Para usar el visor del control remoto que luce en la oscuridad, colocarlo bajo una luz fluorescente u otra fuente luminosa.
- El material fosforecente no contiene elementos radiactivos ni tóxicos, de modo que su uso no representa ningún peligro.
- El grado de iluminación variará de acuerdo con la potencia de la luz utilizada.
- El grado de iluminación irá decayendo con el tiempo y dependiendo de la temperatura.
- El tiempo necesario para cargar el visor fosforecente variará de acuerdo con la iluminación circundante.
- La luz del sol y la luz fluorescente son las más eficaces para la carga del visor.

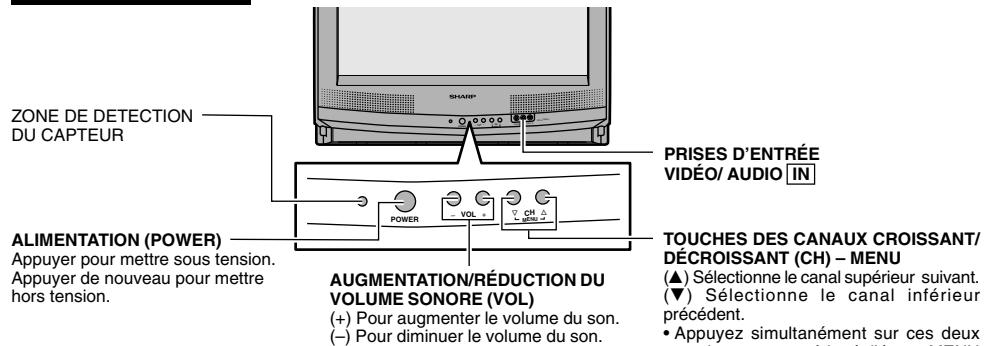


Référence rapide sur les commandes

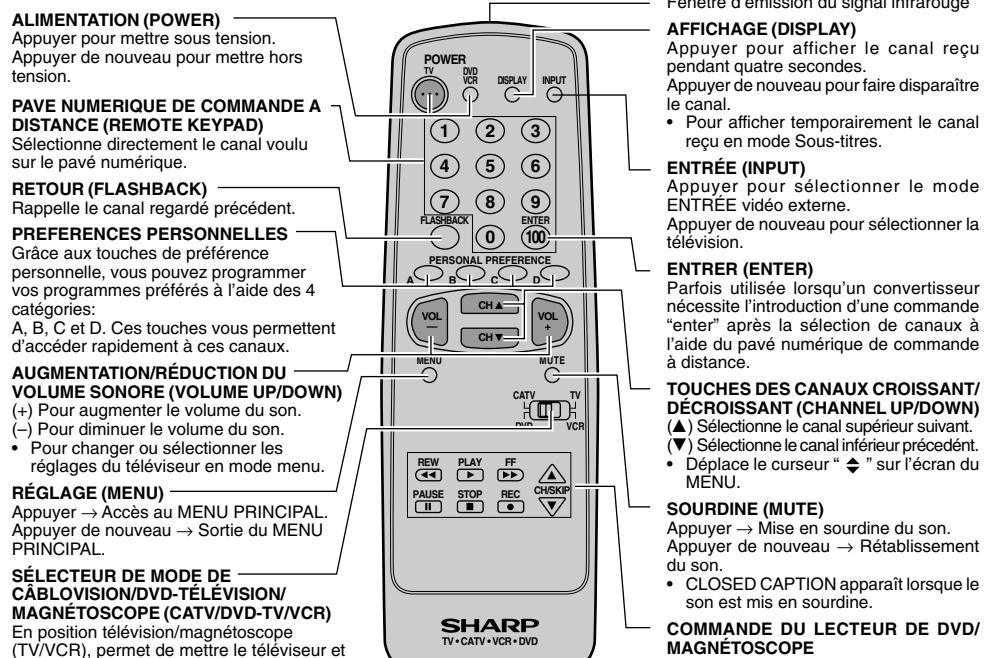
■ Emplacement des touches

(FRANÇAIS)

Panneau Avant



Fonctions de base de la télécommande



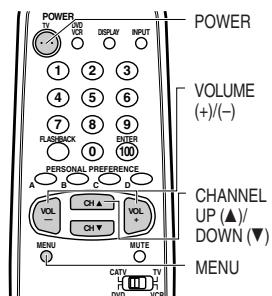
Remarque:

- Les boutons ombrés de la télécommande illustrés ci-dessus brillent dans l'obscurité lorsque la télécommande a été placée sous une ampoule fluorescente ou toute autre source lumineuse.
- Le matériau phosphorescent n'est absolument pas toxique ou radioactif. Il peut donc être utilisé en toute sécurité.
- Le degré d'illumination variera en fonction de l'intensité de la source d'éclairage.
- Le degré d'illumination diminuera avec le temps, en fonction de la température.
- Le temps requis pour charger les touches phosphorescentes dépendra de l'éclairage environnant.
- Les rayons directs du soleil et les luminaires fluorescents constituent les meilleures sources de chargement des touches phosphorescentes.



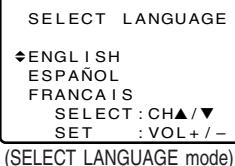
EZ SETUP during First Power On

- When you turn on the TV for the first time, it will automatically memorize the broadcasting channels.
Please perform the following instructions before you press the power button.
(1) Insert the batteries into the remote control. (See page 5)
(2) Connect the antenna cable to the TV set. (See page 5 ~ 6)
(3) Plug in the AC POWER cord to the wall outlet.



1 Press the **POWER** button on the TV set or on the Remote Control to turn on the TV. The SELECT LANGUAGE mode will be displayed.

(On the Set) (Remote Control)

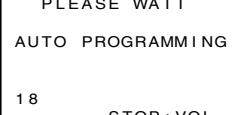
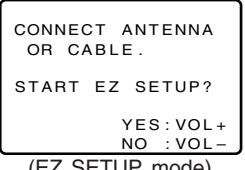


(SELECT LANGUAGE mode)

2 Press **CH UP (▲)** or **DOWN (▼)** to select "ENGLISH", "SPANISH (ESPAÑOL)" or "FRENCH (FRANÇAIS)".



3 Press **VOL (+)** or **(-)** to access EZ SETUP mode.



4 Press **VOL (+)**.

The tuner will automatically search for the broadcasting and cable TV channels. (The CH No. will automatically increase when it appears.)

If you want to stop the EZ SETUP process once it has started, press **VOL (-)** and it will be canceled.

If you want to SETUP again, please refer to page 27 on SETUP.

To cancel EZ SETUP

Press **VOL (-)**.

5 Once EZ SETUP is completed, the lowest channel number memorized will be displayed.

2

Note:

- If EZ SETUP does not memorize all the channels in your region, please refer to page 28 for more information on manually memorizing the channels using CHANNEL SETTING.
- It may be difficult to PRESET when the broadcasting signals are weak, the channel cycle frequency is incorrect or the frequency jamming is occurring around the area. Please refer to pages 28 ~ 30 for more information on manually memorizing the channels using CHANNEL SETTING.

10



Demo Mode

- To quickly learn more about the TV set, press and hold for more than three seconds both **CH UP (▲)** and **DOWN (▼)** on the TV set. The TV set will go into DEMO mode and briefly explain the various features.
- To cancel DEMO mode, again press both **CH UP (▲)** and **DOWN (▼)** on the TV set.

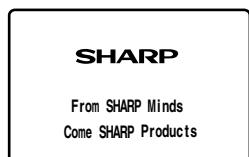
(On the Set)



**CHANNEL UP (▲)/
DOWN (▼) buttons**

Example:

DEMO mode display



SHARP

From SHARP Minds
Come SHARP Products

Accessing the MAIN MENU screen without Remote Control

- If you misplaced your Remote Control you can still access most settings via the MAIN MENU screen when you press both **CH UP (▲)** and **DOWN (▼)** on the TV set.
- Some features of your TV set will not be accessible without the Remote Control. If you lost your Remote Control, contact a Sharp Service Center for a replacement.

(On the Set)



**CHANNEL UP (▲)/
DOWN (▼) buttons**

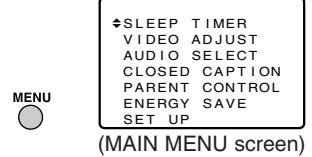




Language

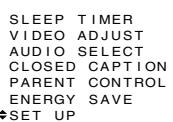
- The language for the ON SCREEN DISPLAY can be set to ENGLISH, SPANISH or FRENCH.
- Setting the ON SCREEN DISPLAY Language.

- 1 Press **MENU** to access MAIN MENU screen.

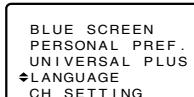
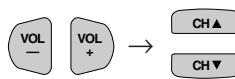


(MAIN MENU screen)

- 2 Press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “SET UP”.

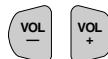


- 3 Press **VOL (+)** or **(-)** to access SET UP mode, then press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “LANGUAGE”.



(SET UP mode)

- 4 Press **VOL (+)** or **(-)** to access LANGUAGE change mode.



(LANGUAGE change mode)

- 5 Press **CH UP (▲)** or **DOWN (▼)** to select “ENGLISH”, “SPANISH (ESPAÑOL)” or “FRENCH (FRANÇAIS)”.



- 6 Press **MENU** to exit.



Sleep Timer

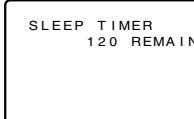
- You can set the number of minutes for your TV to automatically turn off.

- 1 Press **MENU** to access MAIN MENU screen.



(MAIN MENU screen)

- 2 Press **VOL (+)** or **(-)** to access TIMER SET mode.



(TIMER SET mode)

- 3 Press **VOL (+)** or **(-)** to set a sleep time of 30, 60, 90 or 120 minutes.



- 4 Press **MENU** to exit.

Note:

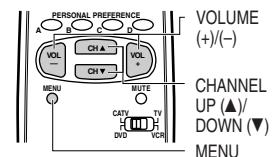
- To turn off the Sleep Timer, repeat the above SLEEP TIMER steps and select “**— — REMAIN**” during step 3.
- While SLEEP TIMER is active, the time remaining will be briefly displayed on-screen at regular intervals or when the remote's Display key is pressed.



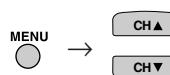
Video Adjust

Description of Adjustment Items

Selected item	VOL UP (+) button	VOL DOWN (-) button
PICTURE	To increase contrast	To decrease contrast
TINT	To make skin tones greenish	To make skin tones purplish
COLOR	To increase color intensity	To decrease color intensity
BRIGHT	To increase brightness	To decrease brightness
SHARP	To increase sharpness	To decrease sharpness
FAVORITE COLOR	To choose a RED, BLUE or STANDARD COLOR TONE.	
RESET	To return all adjustments to factory preset levels.	



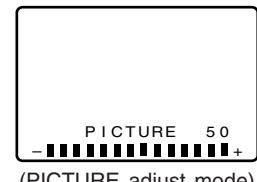
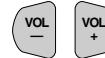
- 1 Press **MENU** to access MAIN MENU screen.
- 2 Press **CH UP (▲)** or **DOWN (▼)** to move the “◆” mark to “VIDEO ADJUST”.



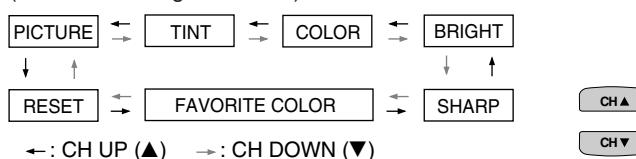
SLEEP TIMER
◆VIDEO ADJUST
AUDIO SELECT
CLOSED CAPTION
PARENT CONTROL
ENERGY SAVE
SET UP

(MAIN MENU screen)

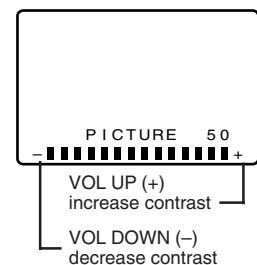
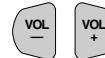
- 3 Press **VOL (+)** or **(-)** to access PICTURE adjust mode.



- 4 Press **CH UP (▲)** or **DOWN (▼)** to select the desired mode.
(Refer to the diagram below.)



- 5 Press **VOL (+)** or **(-)** to adjust the setting.



- 6 Repeat steps 4 to 5 to adjust other settings.

- 7 Press **MENU** to exit.





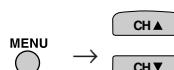
Audio Select

■ MTS (MULTICHANNEL TV SOUND)

This circuit allows reception of stereo or bilingual TV sound.

1 Press **MENU** to access MAIN MENU screen.

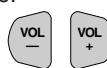
2 Press **CH UP (▲)** or **DOWN (▼)** to move the “ **▲**” mark to “AUDIO SELECT”.



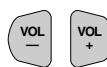
SLEEP TIMER
VIDEO ADJUST
♦AUDIO SELECT
CLOSED CAPTION
PARENT CONTROL
ENERGY SAVE
SET UP

(MAIN MENU screen)

3 Press **VOL (+)** or **(-)** to access AUDIO SELECT mode.



4 Press **VOL (+)** or **(-)** to select “STEREO”, “SAP” or “MONO”.



AUDIO SELECT
MTS : SAP

(AUDIO SELECT mode)

5 Press **MENU** to exit.

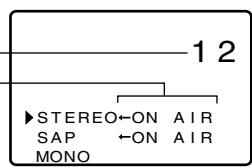


Ex:

Actual screen indicating ON AIR when receiving STEREO broadcasts.

Actual channel number

“ **← ON AIR**” will appear next to STEREO or SAP when receiving STEREO or SAP broadcasts.



(Channel call on screen)

■ You can enjoy Hi-Fi stereo sound or SAP broadcasts where available.

- Stereo broadcasts
Live television transmission of sports, shows, concerts, etc. can be received in dynamic stereo sound.
- SAP broadcasts
Television broadcast can be received with either MAIN or SAP sound.
MAIN sound: The normal program soundtrack. (Monaural or stereo where available.)
SAP sound: Second language, supplementary commentaries, etc. (SAP sound is monaural.)

■ If stereo sound is difficult to hear.

- You can obtain clearer sound by manually switching to fixed monaural mode.

Note:

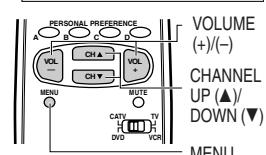
- Once MONO mode is selected, the TV sound remains monaural even if the TV set receives a stereo broadcast. You must switch the mode back to STEREO if you want to hear stereo sound again.
- Selecting MTS while in the INPUT mode does not change the type of sound; in this case, sound is determined by the video source.



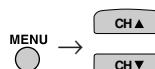
Closed Caption

■ HOW TO SET CLOSED CAPTION

- Your TV is equipped with an internal Closed Caption decoder. "Closed Caption" is a system which allows you to view conversations, narration, and sound effects in TV programs and home videos as subscript on your TV screen as shown on the right.
- Not all the programs and videos will offer closed caption. Please look for the "cc" symbol to ensure that captions will be shown.
- Closed Caption broadcast can be viewed in two modes: CAPTION and TEXT. For each mode, two channels are available, CH1 and CH2: The [CAPTION] mode subscripts dialogues and commentaries of TV dramas and news programs while allowing clear view of the picture. The [TEXT] mode displays over the picture other various information (such as TV program schedule, weather forecast, etc.) that is independent of the TV programs.



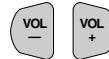
- 1 Press **MENU** to access MAIN MENU screen.
- 2 Press **CH UP (▲)** or **DOWN (▼)** to move the "♦" mark to "CLOSED CAPTION".



SLEEP TIMER
VIDEO ADJUST
AUDIO SELECT
♦CLOSED CAPTION
PARENT CONTROL
ENERGY SAVE
SET UP

(MAIN MENU screen)

- 3 Press **VOL (+)** or **(-)** to access CLOSED CAPTION setting mode.



CLOSED CAPTION
♦MODE : CAPTION
DATA : CH 1

(CLOSED CAPTION setting mode)

- 4 Press **CH UP (▲)** or **DOWN (▼)** to move the "♦" mark to either "MODE" or "DATA".



CLOSED CAPTION
MODE : CAPTION
♦DATA : CH 1

- 5 Press **VOL (+)** or **(-)** to change the CLOSED CAPTION setting.



MODE :

CAPTION
↑
TEXT
↑
OFF

 DATA :

CH 1
↑
CH 2

CLOSED CAPTION
♦MODE : CAPTION
DATA : CH 1

- 6 Press **MENU** to exit.



Note:

- If a broadcast has CLOSED CAPTION and the **MUTE** button is pressed, the set enters [CAPTION] mode automatically. Pressing **MUTE** again will return the set to its previous condition.
- Closed Caption may malfunction (white blocks, strange characters, etc.) if signal conditions are poor or if there are problems at the broadcast source. This does not necessarily indicate a problem with your set.
- If any button is pressed to call up the ON SCREEN DISPLAY while viewing a CLOSED CAPTION broadcast, the closed captions will disappear momentarily.
- When viewing in TEXT mode, if no TEXT broadcast is being received, for some programs the screen may become dark and blank. Should this occur, set the Closed Caption mode to "OFF".



Parent Control (V-CHIP Operation)

■ V-CHIP

- This function allows you to restrict TV programs and also allows you to control TV usage based on FCC data. This function is to prevent your children from watching violence or sexual scenes that may be harmful.
- Restriction of TV programs includes two characters that contain information about the program's MPAA rating and the TV Parental Guidelines. MPAA is restricted by age. TV Parental Guidelines are restricted by age and contents.
- Since a TV program may use either the MPAA rating or the TV Guidelines you should adjust both for complete control.

[1] MPAA RATING

RATING	
age base	G GENERAL AUDIENCES. All ages admitted.
	PG PARENTAL GUIDANCE SUGGESTED. Some material may not be suitable for children.
	PG-13 PARENTAL STRONGLY CAUTIONED. Some material may be inappropriate for children under 13.
	R RESTRICTED. Under 17 requires accompanying parent or adult guardian.
	NC-17 NO ONE 17 AND UNDER ADMITTED.
	X X Rating is an older rating that is unified with NC-17 but may be encoded on older movie's data.

• MPAA RATING (Example)

Example 1.

"PG-13" in the age based RATING is blocked, this will automatically block the high ratings "R", "NC-17", "X" also.

1. User setting		2. Block table	
G	-----	G	not to block
PG	-----	PG	not to block
PG-13	BLOCK	PG-13	Select block
R	BLOCK	R	auto-block
NC-17	BLOCK	NC-17	auto-block
X	BLOCK	X	auto-block

Example 2.

"R" in the age based RATING is blocked, this will automatically block the high rating "NC-17", "X" also.

1. User setting		2. Block table	
G	-----	G	not to block
PG	-----	PG	not to block
PG-13	-----	PG-13	not to block
R	BLOCK	R	Select block
NC-17	BLOCK	NC-17	auto-block
X	BLOCK	X	auto-block

Note:

- MPAA RATING is only age based ratings.

[2] TV PARENTAL GUIDELINES

RATING		content base					
		AGE	D (Sexually Suggestive Dialog)	L (Adult Language)	S (Sexual Situation)	V (Violence)	FV (Fantasy Violence)
age base	TV-Y (All children)	[V]	-	-	-	-	-
	TV-Y7 (Direct to Older Children)	[V]	-	-	-	-	[V]
	TV-G (General Audience)	[V]	-	-	-	-	-
	TV-PG (Parental Guidance Suggested)	[V]	[V]	[V]	[V]	[V]	-
	TV-14 (Parents Strongly Cautioned)	[V]	[V]	[V]	[V]	[V]	-
	TV-MA (Mature Audience Only)	[V]	-	[V]	[V]	[V]	-

[V] : Content Rating can be set.

- : Content Rating can not be set (not normally broadcast by TV station).



Parent Control (V-CHIP Operation Continued)

• TV-PARENTAL GUIDELINES (Example)

Example 1.1 : Age Based setting

Go through all select ratings and select unblocked for "AGE".
This will automatically unblock everything.

	AGE	D	L	S	V	FV	
TV-Y	<input type="checkbox"/>	-	-	-	-	-	<input type="checkbox"/> V:VIEW
TV-Y7	<input type="checkbox"/>	-	-	-	-	-	<input type="checkbox"/> V:BLOCK
TV-G	<input type="checkbox"/>	-	-	-	-	-	-
TV-PG	<input type="checkbox"/>	-	-	-	-	-	-
TV-14	<input type="checkbox"/>	-	-	-	-	-	-
TV-MA	<input type="checkbox"/>	-	-	-	-	-	-

MENU:RETURN

Example 1.2 : Age Based setting

For "TV-G" select "BLOCK" for "AGE". This will automatically block the higher age ratings "TV-PG", "TV-14" and "TV-MA" as well as "TV-G". Furthermore, the content ratings "D", "L", "S", "V", "FV" are automatically blocked as well for "TV-PG", "TV-14" and "TV-MA" as well as "TV-G".

	AGE	D	L	S	V	FV	
TV-Y	<input type="checkbox"/>	-	-	-	-	-	<input type="checkbox"/> V:VIEW
TV-Y7	<input type="checkbox"/>	-	-	-	-	-	<input type="checkbox"/> V:BLOCK
TV-G	<input checked="" type="checkbox"/>	-	-	-	-	-	-
TV-PG	<input type="checkbox"/>	-	-	-	-	-	-
TV-14	<input type="checkbox"/>	-	-	-	-	-	-
TV-MA	<input type="checkbox"/>	-	-	-	-	-	-

MENU:RETURN

Example 2.1 : Content Based setting

For "TV-PG", "TV-14" and "TV-MA" select unblocked for each content ratings ("D", "L", "S", "V", "FV") by leaving "AGE" unblocked for "TV-PG", "TV-14" and "TV-MA". If you choose to unblock for each one in content base.

	AGE	D	L	S	V	FV	
TV-Y	<input type="checkbox"/>	-	-	-	-	-	<input type="checkbox"/> V:VIEW
TV-Y7	<input type="checkbox"/>	-	-	-	-	-	<input type="checkbox"/> V:BLOCK
TV-G	<input type="checkbox"/>	-	-	-	-	-	-
TV-PG	<input type="checkbox"/>	-	-	-	-	-	-
TV-14	<input type="checkbox"/>	-	-	-	-	-	-
TV-MA	<input type="checkbox"/>	-	-	-	-	-	-

MENU:RETURN

Example 2.2 : Content Based setting

Then for "TV-PG" and select "BLOCK" for only "V" (Violence). This will automatically block the higher ratings "TV-14-V" and "TV-MA-V" ("TV-14" and "TV-MA" for Violence content only).

Please note that with these settings blocking does NOT occur. If a program is rated only "TV-MA"; it must be rated "TV-MA-V" to be blocked.

	AGE	D	L	S	V	FV	
TV-Y	<input type="checkbox"/>	-	-	-	-	-	<input type="checkbox"/> V:VIEW
TV-Y7	<input type="checkbox"/>	-	-	-	-	-	<input type="checkbox"/> V:BLOCK
TV-G	<input type="checkbox"/>	-	-	-	-	-	-
TV-PG	<input type="checkbox"/>	-	-	-	<input checked="" type="checkbox"/>	V	-
TV-14	<input type="checkbox"/>	-	-	-	<input checked="" type="checkbox"/>	V	-
TV-MA	<input type="checkbox"/>	-	-	-	<input checked="" type="checkbox"/>	V	-

MENU:RETURN

Example 3 : Reset an Age Based setting

For "TV-14" and select again "BLOCK" for "AGE".

This will again automatically block the content ratings "D", "L", "S", "V", "FV" for "TV-MA" as well as "TV-14".

Please note that the lower age rating "TV-PG" did not change from its previous settings.

	AGE	D	L	S	V	FV	
TV-Y	<input type="checkbox"/>	-	-	-	-	-	<input type="checkbox"/> V:VIEW
TV-Y7	<input type="checkbox"/>	-	-	-	-	-	<input type="checkbox"/> V:BLOCK
TV-G	<input type="checkbox"/>	-	-	-	-	-	-
TV-PG	<input type="checkbox"/>	-	-	-	-	-	-
TV-14	<input checked="" type="checkbox"/>	-	-	-	<input checked="" type="checkbox"/>	V	-
TV-MA	<input type="checkbox"/>	-	-	-	<input checked="" type="checkbox"/>	V	-

MENU:RETURN

Note:

- Content ratings can be modified but only in the combinations indicated by an in the table on page 16.
- Changing a lower age rating's content setting to "BLOCK" automatically changes the same higher age rating's content setting to "BLOCK" regardless of their previous settings.
- Changing a lower rating's "AGE" setting to "BLOCK" automatically changes all higher ratings to "BLOCK" regardless of their previous settings.
- Any rating's "AGE" set to unblocked must have its content settings individually set.

[3] ADDITIONAL MODE

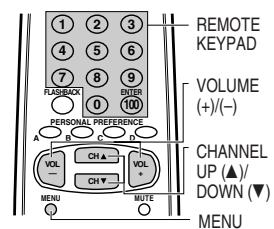
Besides the above "MPAA RATINGS" and "TV PARENTAL GUIDELINES" new ratings system's data can be downloaded when they become available. (See page 20.)



Parent Control (V-CHIP Operation Continued)

■ HOW TO SET V-CHIP

[1] MPAA RATING



1 Press **MENU** to access MAIN MENU screen.



◆ SLEEP TIMER
VIDEO ADJUST
AUDIO SELECT
CLOSED CAPTION
PARENT CONTROL
ENERGY SAVE
SET UP

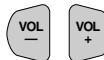
(MAIN MENU screen)

2 Press **CH UP (▲)** or **DOWN (▼)** to move the “◆” mark to “PARENT CONTROL”.



SLEEP TIMER
VIDEO ADJUST
AUDIO SELECT
CLOSED CAPTION
◆ PARENT CONTROL
ENERGY SAVE
SET UP

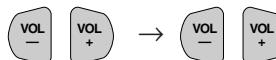
3 Press **VOL (+)** or **(-)** to access PARENT CONTROL mode, then “PARENT CONTROL V-CHIP BLOCK” is displayed.



PARENT CONTROL
◆ V-CHIP BLOCK
VIEW TIMER

(PARENT CONTROL mode)

4 Press **VOL (+)** or **(-)** to access V-CHIP select mode, then press **VOL (+)** or **(-)** to select “MPAA RATING”.

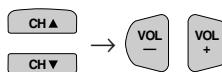


◆ MPAA
TV GUIDELINES

DOWNLOAD : OFF
STATUS : OFF

(V-CHIP select mode)

5 Press **CH UP (▲)** or **DOWN (▼)** to move the “◆” mark to “PG”, then press **VOL (+)** or **(-)** to select BLOCK. If you set “PG” to BLOCK, “PG-13”, “R”, “NC-17” and “X” are automatically blocked.



G	:----
◆ PG	:BLOCK
PG-13	:BLOCK
R	:BLOCK
NC-17	:BLOCK
X	:BLOCK

MENU : RETURN

6 Repeat pressing **MENU** to return V-CHIP select mode exit.



Note:

Ex.

- If you set “G” to BLOCK, all RATING are automatically blocked.
- If you set “X” to BLOCK, “G”, “PG”, “PG-13”, “R” and “NC-17” are not blocked.



Parent Control (V-CHIP Operation Continued)

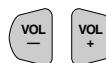
[2] TV GUIDELINES

- 1 Repeat steps 1 to 3 of [1] MPAA RATING.
- 2 Press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “TV GUIDELINES”.



MPAA
◆TV GUIDELINES
DOWNLOAD : OFF
STATUS : OFF

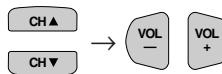
- 3 Press **VOL (+)** or **(-)** to access TV GUIDELINES mode.



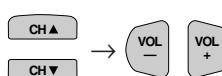
AGE D L S V FV
TV-Y - - - - - VIEW
♦TV-Y7 - - - - - V: BLOCK
TV-G - - - - - -
TV-PG V V V V V V -
TV-14 V V V V V V -
TV-MA V V V V V V -
MENU : RETURN

(TV GUIDELINES mode)

- 4 To change CONTENT SETTING, press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” to the desired rating and then press **VOL (+)** or **(-)** to select.



- 5 Press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” to the desired content and then press **VOL (+)** or **(-)** to select either “BLOCK” or unblock (“- - - -”).



TV-Y7 : AGE : BLOCK
♦AGE : BLOCK
D : -----
L : -----
S : -----
V : -----
FV : BLOCK
MENU : RETURN

(CONTENT RATING mode)

- 6 Press **MENU** to return to TV GUIDELINES mode.



AGE D L S V FV
TV-Y - - - - - VIEW
TV-Y7 - - - - - V: BLOCK
♦TV-G - - - - - -
TV-PG V V V V V V -
TV-14 V V V V V V -
TV-MA V V V V V V -
MENU : RETURN

- 7 Repeat steps 4 to 5 until all ratings and their contents are set.

- 8 When done, press **MENU** to exit.





Parent Control (V-CHIP Operation Continued)

[3] ADDITIONAL MODE (DOWNLOAD)

There will be an additional new rating system. In that case, please set up as follows. Subsequently the new rating system will set up automatically.

1 Repeat steps 1 to 3 of [1] MPAA RATING.

2 Press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “DOWNLOAD”.



MPAA
TV GUIDELINES
◆ DOWNLOAD : OFF
STATUS : OFF

3 Press **VOL (+)** or **(-)** to “DOWNLOAD : ON”.

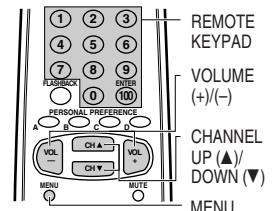


MPAA
TV GUIDELINES
◆ DOWNLOAD : ON
STATUS : OFF

4 Repeat pressing **MENU** to return exit.



● DOWNLOAD V-CHIP DATA



1 If you watch the program with “New Rating System Data”, DOWNLOAD screen will be displayed.

PLEASE WAIT
NOW DOWNLOADING
V-CHIP DATA

(DOWNLOAD screen)

2 DOWNLOAD screen will disappear, if DOWNLOAD is finished.

Note: ➤

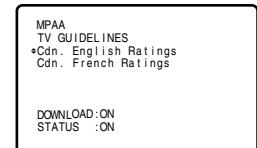
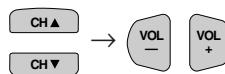
- DOWNLOAD would not be started, if you don't watch the program with “New Rating System Data”.



Parent Control (V-CHIP Operation Continued)

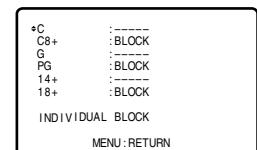
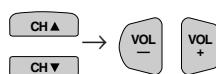
• ADDITIONAL MODE (Example)

- 1 Repeat steps 1 to 2 of [3] ADDITIONAL MODE.
- 2 Press **CH UP (▲)** or **DOWN (▼)** to move the “◆” mark to “Cdn. English Ratings”, then press **VOL (+)** or **(-)**.



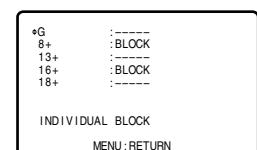
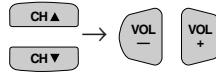
(After download the rating data)

- 3 You can select “BLOCK” or “----” (unblock) from each RATING mode by pressing **CH UP (▲)** or **DOWN (▼)** and **VOL (+)** or **(-)**.



(ENGLISH INDIVIDUAL BLOCK mode)

- 4 You can select “BLOCK” or “----” (unblock) from each RATING mode by pressing **CH UP (▲)** or **DOWN (▼)** and **VOL (+)** or **(-)** if you select “Cdn. French Ratings” in step 2.



(FRENCH INDIVIDUAL BLOCK mode)

Note:

- In additional mode

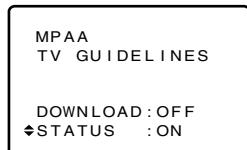
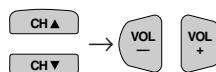
Including two types (English mode, French mode), altogether you are able to download 4 kinds of mode.



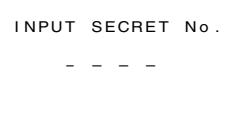
Parent Control (V-CHIP Operation Continued)

■ ACTIVATE ON TO TURN ON V-CHIP BLOCK

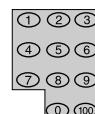
- 1 Repeat steps 1 to 3 of [1] MPA A RATING.
- 2 Press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “**STATUS**”, then press **VOL (+)** or **(-)** to activate ON the V-CHIP BLOCK. (If STATUS is OFF, V-CHIP BLOCK will not be operated.)



- 3 Press **MENU**, then “**INPUT SECRET No.**” will be displayed.



- 4 Enter the 4-digit SECRET No. using the **REMOTE KEYPAD**.



- 5 Press **MENU** and SECRET No. is registered.



■ To cancel the V-CHIP BLOCK screen while V-CHIP BLOCK has been activated.

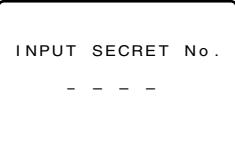
- 1 “**V-CHIP HAS BEEN ACTIVATED**” will be displayed if you watch the program with Program Rating data as same as you configured.

Note: ➤

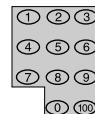
- “**V-CHIP HAS BEEN ACTIVATED**” will not be displayed if STATUS is not configured to “**ON**”.



- 2 Press **MENU**, then “**INPUT SECRET No.**” will be displayed.



- 3 Enter the 4-digit SECRET No. using the **REMOTE KEYPAD**, then V-CHIP BLOCK temporarily will be canceled. If the wrong SECRET No. is chosen, “**SECRET No. IS INCORRECT**” will be displayed. Input the SECRET No. again in this case.



Note: ➤

- If you change Power from OFF to ON, then V-CHIP BLOCK will be activated ON again.



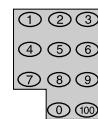
Parent Control (V-CHIP Operation Continued)

■ To change the V-CHIP BLOCK setting. (Secret No. is registered.)

- 1 Repeat steps 1 to 3 of [1] MPAA RATING, then "INPUT SECRET No." will be displayed.

INPUT SECRET No.
- - - -

- 2 Enter the 4-digit SECRET No. using the **REMOTE KEYPAD** and the V-CHIP select mode will be displayed. Repeat configuration of the V-CHIP BLOCK.



INPUT SECRET No.
* * * *

■ If you intend to change or forget your Secret No., clear the original Secret No. and set up a new one.

- 1 Repeat steps 1 to 3 of [1] MPAA RATING, or 1 to 2 of [■ To cancel the V-CHIP BLOCK screen while V-CHIP BLOCK has been activated], then "INPUT SECRET No." will be displayed.

- 2 Press and hold both **VOL (+)** and **CH DOWN (▼)** on the TV set simultaneously until the message "INPUT SECRET No." disappears.

(On the Set)



**VOL (+)/CHANNEL
DOWN (▼) buttons**

- 3 Press **MENU** two times to exit.





Parent Control (VIEW TIMER)

■ VIEW TIMER

This function allows you to restrict TV viewing time and also allows you to control TV usage. This function is to prevent your children from watching too much TV.

VIEWING TIME (an accumulative timer: counts only the time duration acquired while the TV is on.)

- VIEWING TIME can be set from 30M (30 minutes) to 10H00M (10 hours) in 30 minutes intervals.

OFF TIME (Restricts TV watching after the VIEWING TIME reaches zero.)

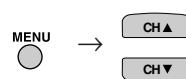
- OFF TIME can be set from 30M (30 minutes) to 10H00M (10 hours) in 30 minutes intervals.

STATUS (ON/OFF setting of VIEW TIMER)

VIEW TIMER
◆VIEWING TIME
--H --M
OFF TIME
--H --M
STATUS:OFF

■ How to set VIEW TIMER.

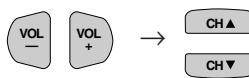
- 1 Press **MENU** to access MAIN MENU screen.
- 2 Press **CH UP(▲)** or **DOWN(▼)** to move the “◆” mark to “PARENT CONTROL”.



SLEEP TIMER
VIDEO ADJUST
AUDIO SELECT
CLOSED CAPTION
◆PARENT CONTROL
ENERGY SAVE
SET UP

(MAIN MENU screen)

- 3 Press **VOL (+)** or **(-)** to access PARENT CONTROL mode.
- 4 Press **CH UP(▲)** or **DOWN(▼)** to move the “◆” mark to “VIEW TIMER”.



PARENT CONTROL
V-CHIP BLOCK
◆VIEW TIMER

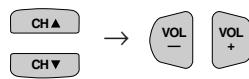
(PARENT CONTROL mode)

- 5 Press **VOL (+)** or **(-)** to access “VIEW TIMER”.



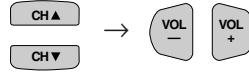
VIEW TIMER
◆VIEWING TIME
--H --M
OFF TIME
--H --M
STATUS :OFF

- 6 Press **CH UP(▲)** or **DOWN(▼)** to select “VIEWING TIME” and “OFF TIME”. For each selection, press the **VOL (+)** or **(-)** to set the time duration.



VIEW TIMER
VIEWING TIME
2H 00M
◆OFF TIME
--H --M
STATUS :OFF

- 7 Press **CH UP(▲)** or **DOWN(▼)** to select “STATUS”. Press the **VOL (+)** or **(-)** to turn ON the “VIEWING TIMER”. (If STATUS is OFF, VIEW TIMER is not operated)



VIEW TIMER
VIEWING TIME
2H 00M
OFF TIME
5H 00M
◆STATUS:ON

- 8 Press **MENU**. “INPUT SECRET No.” will be displayed.

INPUT SECRET No.
- - - - -

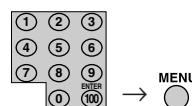




Parent Control (VIEW TIMER Continued)

9 Enter the 4-digit SECRET No. using the **REMOTE KEYPAD**.

10 Press **MENU**, and SECRET No. is registered.



INPUT SECRET No.
1 2 3 4

Example

- To restrict anybody from watching the TV for 5 hours, after watching the TV for 2 hours, your settings would look like this:
- They can choose to watch the 2 hours of TV however they wish. For example, they could watch 1 hour of TV, turn TV off for 30 minutes, then turn TV on and watch the remaining 1 hour on the VIEWING TIMER.

VIEW TIMER
VIEWING TIME
2H 00M
OFF TIME
5H 00M
♦STATUS:ON

■ To change the VIEW TIMER settings. (SECRET No. is registered)

1 Repeat "How to set VIEW TIMER" steps and select

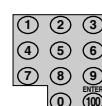
"PARENT CONTROL VIEW TIMER" during step 3.

Press **VOL (+)** or **(-)**, and "INPUT SECRET No." will be displayed.



INPUT SECRET No.
- - - -

2 Enter the 4-digit SECRET No. using the **REMOTE KEYPAD**, and the VIEW TIMER access screen will be displayed. Repeat step 5 ~ 6.



INPUT SECRET No.
* * * *

Note:

- When you choose the correct SECRET No., the VIEW TIMER access screen is displayed. If the wrong SECRET No. is chosen, "SECRET No. IS INCORRECT" is displayed. Input the SECRET No. again in this case.

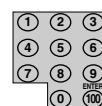
SECRET No. IS
INCORRECT

■ To cancel the VIEW TIMER (While the TV set is OFF but the VIEW TIMER is set)

1 Turn on TV; a blue screen message "TIME OVER" will appear. If you do nothing, the TV will turn off in approximately 30 seconds.

TIME OVER
INPUT SECRET No.
- - - -

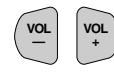
2 Enter the 4-digit SECRET No. using the **REMOTE KEYPAD**. When you choose the correct SECRET No., the VIEW TIMER is canceled. If the wrong SECRET No. is chosen, "SECRET No. IS INCORRECT" is displayed. Input the SECRET No. again in this case.



TIME OVER
INPUT SECRET No.
* * * *

■ To cancel the VIEW TIMER setting or change the SECRET No. (When you forget the SECRET No.)

1 Repeat "How to set VIEW TIMER" steps and select "PARENT CONTROL VIEW TIMER" during step 3. Press **VOL (+)** or **(-)**, and "INPUT SECRET No." will be displayed.



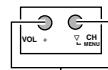
INPUT SECRET No.
- - - -



Parent Control (VIEW TIMER Continued)

2 Press and hold both **VOL (+)** and **CH DOWN (▼)** on the TV set simultaneously until the VIEW TIMER access screen is displayed. Now you can cancel the VIEW TIMER settings or can change the SECRET No. while "INPUT SECRET No." is displayed.

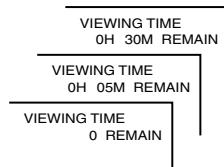
(On the Set)



**VOL (+)/CHANNEL
DOWN (▼) buttons**

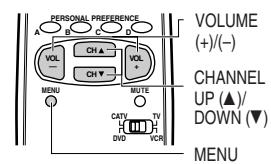
■ Notice of Remaining VIEWING TIME

- For every 30 minute interval, the "remaining time" will be displayed for 4 seconds. For the last 5 minutes, the "remaining time" will be displayed every minute.
- "0 REMAIN" will be displayed for 10 seconds just before the VIEWING TIME is completed.

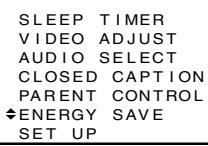
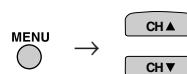


Energy Save

■ This feature lets you lower the power consumption of your TV set which in turn saves you money and minimizes the impact on the environment. When this feature is turned on, it reduces the brightness of the TV to a level that consumes approximately 20 percent less energy than when the feature is turned off. The reduction in brightness will be less noticeable under low room lighting conditions.

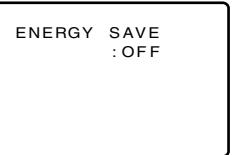
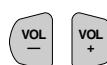


1 Press **MENU** to access MAIN MENU screen.
2 Press **CH UP (▲)** or **DOWN (▼)** to move the "♦" mark to "ENERGY SAVE".



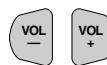
(MAIN MENU screen)

3 Press **VOL (+)** or **(-)** to access ENERGY SAVE select mode.



(ENERGY SAVE select mode)

4 Press **VOL (+)** or **(-)** to select "ON".



5 Press **MENU** to exit.

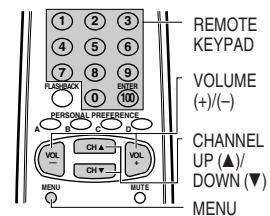




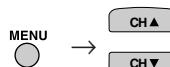
Set Up

■ EZ SETUP

By operating the channel presetting functions, you can preset your TV to the desired channels for viewing.



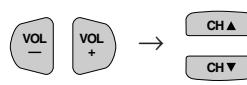
- 1 Press **MENU** to access MAIN MENU screen.
- 2 Press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “SET UP”.



SLEEP TIMER
VIDEO ADJUST
AUDIO SELECT
CLOSED CAPTION
PARENT CONTROL
ENERGY SAVE
◆SET UP

(MAIN MENU screen)

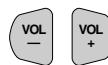
- 3 Press **VOL (+)** or **(-)** to access SET UP mode, then press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “CH SETTING”.



BLUE SCREEN
PERSONAL PREF.
UNIVERSAL PLUS
LANGUAGE
◆CH SETTING

(SET UP mode)

- 4 Press **VOL (+)** or **(-)** to access CH SETTING mode.



◆EZ SETUP
AIR/CABLE
CH SEARCH
CH MEMORY

(CH SETTING mode)

- 5 Press **VOL (+)** or **(-)** to access EZ SETUP mode.



CONNECT ANTENNA
OR CABLE.
START EZ SETUP?
YES : VOL +
NO : VOL -

(EZ SETUP mode)

- 6 Press **VOL (+)**.

The tuner will automatically search for the broadcasting and cable TV channels. (The CH No. will automatically increase when it appears.)

If you want to stop the EZ SETUP process once it has started, press **VOL (-)**. Search will be canceled.

To cancel EZ SETUP
Press **VOL (-)**.



PLEASE WAIT
AUTO PROGRAMMING
18
STOP : VOL -

- 7 Once EZ SETUP is completed, the lowest channel number memorized will be displayed.

2

27

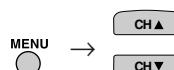


Set Up (Continued)

■ CHANNEL SETTING

If EZ SETUP does not memorize all the channels in your region, follow the instructions below to manually memorize the channel.

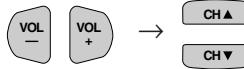
- 1 Press **MENU** to access MAIN MENU screen.
- 2 Press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “SET UP”.



SLEEP TIMER
VIDEO ADJUST
AUDIO SELECT
CLOSED CAPTION
PARENT CONTROL
ENERGY SAVE
◆SET UP

(MAIN MENU screen)

- 3 Press **VOL (+)** or **(-)** to access SET UP mode.
- 4 Press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “CH SETTING”.



BLUE SCREEN
PERSONAL PREF.
UNIVERSAL PLUS
LANGUAGE
◆CH SETTING

(SET UP mode)

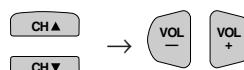
- 5 Press **VOL (+)** or **(-)** to access CH SETTING mode.



◆EZ SETUP
AIR/CABLE
CH SEARCH
CH MEMORY

(CH SETTING mode)

- 6 Press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “AIR/CABLE”, then press **VOL (+)** or **(-)** to access AIR/CABLE mode.



EZ SETUP
◆AIR/CABLE
CH SEARCH
CH MEMORY

- 7 Press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to the desired mode.



AIR/CABLE
AIR
CABLE STD
◆CABLE HRC
CABLE IRC

(AIR/CABLE mode)

- 8 Press **MENU** to exit.



Note:

- Receivable channels of your TV set are:
AIR channels:
VHF: 2 through 13.
UHF: 14 through 69.

CABLE channels:

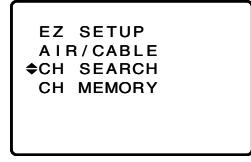
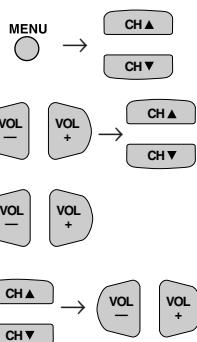
- 1 (HRC and IRC mode only)
- 2 through 125 (STD, HRC and IRC)



Set Up (Continued)

■ Saving broadcast TV channels into memory.

- 1.1 Press **MENU** to access MAIN MENU screen, then press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “SET UP”.
- 1.2 Press **VOL (+)** or **(-)** to access SET UP mode, then press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “CH SETTING”.
- 1.3 Press **VOL (+)** or **(-)** to access CH SETTING screen.
- 1.4 Press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “CH SEARCH”, then press **VOL (+)** or **(-)** to access CH SEARCH screen.



(CH SETTING mode)

START

- 2.1 Press **VOL (+)**. The tuner will search through all available channels in your area and add them into the TV's memory.

(START)



STOP

- 2.2 Press **VOL (-)**. CH SEARCH will stop at the current channel and will not add any higher channels.

(STOP)



- 2.3 Press **MENU** to exit.

MENU

CH SEARCH

AIR 12

START : +
STOP : -

(CH SEARCH mode)

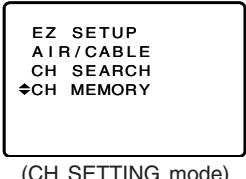
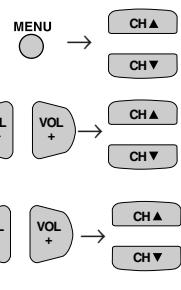
Note:

- If you press **VOL (+)** again while in the CH SEARCH mode, auto-program will start again, and the previously memorized channels will be lost.



■ Adding weak or additional channels or erasing unwanted channels from TV memory.

- 1.1 Press **MENU** to access MAIN MENU screen, then press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “SET UP”.
- 1.2 Press **VOL (+)** or **(-)** to access SET UP mode, then press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “CH SETTING”.
- 1.3 Press **VOL (+)** or **(-)** to access CH SETTING mode, then press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “CH MEMORY”.

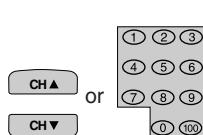


(CH SETTING mode)

- 2.1 Press **VOL (+)** or **(-)** to access CH MEMORY.



- 2.2 Use **CH UP (▲)** or **DOWN (▼)** or **REMOTE KEYPAD** to select each desired channel to add or erase.

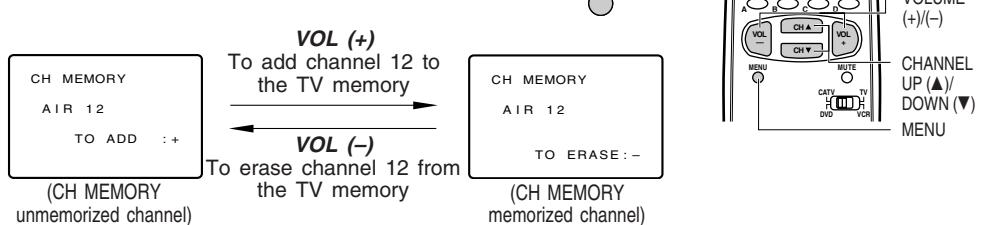


- 2.3 Press **VOL (+)** to add a channel to the TV's memory or press **VOL (-)** to erase a channel from the TV's memory.



Set Up (Continued)

2.4 Press **MENU** to exit.



■ BLUE SCREEN

Automatically turns the screen blue if a broadcast signal is not received.

1 Press **MENU** to access MAIN MENU screen.

2 Press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “**SET UP**”.



(MAIN MENU screen)

3 Press **VOL (+)** or **(-)** to access SET UP mode.



(SET UP mode)

4 Press **VOL (+)** or **(-)** to access BLUE SCREEN select mode.



BLUE SCREEN : OFF

(BLUE SCREEN select mode)

5 Press **VOL (+)** or **(-)** to select “**ON**”.



BLUE SCREEN : ON

6 Press **MENU** to exit.



Note:

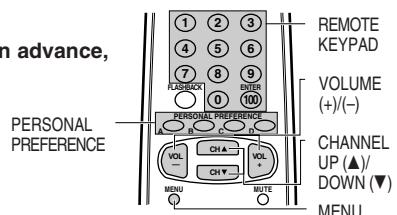
- Poor reception due to weak signals, or too much noise might activate the BLUE SCREEN function despite the presence of a broadcast signal. To continue watching TV under these conditions, switch the BLUE SCREEN “OFF”.
- While VCR input mode is selected, the BLUE SCREEN will not be shown on your TV even if the BLUE SCREEN is turned on.



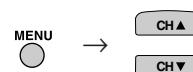
Set Up (Continued)

■ PERSONAL PREFERENCE

By setting the PERSONAL PREFERENCE channels in advance, you can select your favorite channels easily.



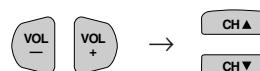
- 1 Press **MENU** to access MAIN MENU screen.
- 2 Press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “SET UP”.



SLEEP TIMER
VIDEO ADJUST
AUDIO SELECT
CLOSED CAPTION
PARENT CONTROL
ENERGY SAVE
◆SET UP

(MAIN MENU screen)

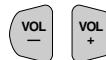
- 3 Press **VOL (+)** or **(-)** to access SET UP mode, then press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “PERSONAL PREFERENCE”.



BLUE SCREEN
◆PERSONAL PREF.
UNIVERSAL PLUS
LANGUAGE
CH SETTING

(SETUP mode)

- 4 Press **VOL (+)** or **(-)** to select PERSONAL PREFERENCE select mode in which you can program 4 favorite channels, in 4 different categories. (total of 16 channels)



PERSONAL PREF.
◆ <A> B C D

(PERSONAL PREFERENCE select mode)

- 5 Press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to the desired position.

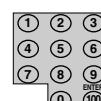


PERSONAL PREF.
◆ <A> B C D

- 6 Press **REMOTE KEYPAD** on the Remote to input the CHANNEL Number into the memory.

Example:

125 — Press “100” followed by “2” and then “5”.



PERSONAL PREF.
◆ <A> B C D
125 -----
25 -----
40 -----
4 -----

- 7 Repeat steps 4 to 6 to input the next CHANNEL Number.

- 8 Press **MENU** to exit.



To select the PERSONAL PREFERENCE channel.

If the channels are memorized as shown to the right, press the Remote's “A” button to select the Channels below.

→ 125 → 25 → 40 → 4 →

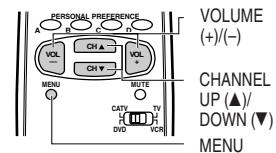
PERSONAL PREF.
◆ <A> B C D
125 85 38 -----
25 123 30 -----
40 55 -----
4 -----



Set Up (Continued)

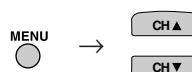
■ UNIVERSAL PLUS FUNCTION

VCR or DVD input mode will be selected automatically by pressing VCR or DVD PLAY button on UNIVERSAL REMOTE CONTROL.



1 Press **MENU** to access MAIN MENU screen.

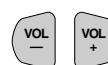
2 Press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “SET UP”.



SLEEP TIMER
VIDEO ADJUST
AUDIO SELECT
CLOSED CAPTION
PARENT CONTROL
ENERGY SAVE
◆SET UP

(MAIN MENU screen)

3 Press **VOL (+)** or **(-)** to access SET UP mode.



◆BLUE SCREEN
PERSONAL PREF.
UNIVERSAL PLUS
LANGUAGE
CH SETTING

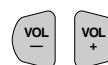
(SET UP mode)

4 Press **CH UP (▲)** or **DOWN (▼)** to move the “**◆**” mark to “UNIVERSAL PLUS”.



BLUE SCREEN
PERSONAL PREF.
◆UNIVERSAL PLUS
LANGUAGE
CH SETTING

5 Press **VOL (+)** or **(-)** to access UNIVERSAL PLUS to select VCR or DVD mode.



UNIVERSAL PLUS

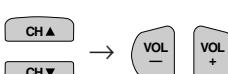
◆VCR: :OFF
DVD: :OFF

(UNIVERSAL PLUS select mode)

6 Press **CH UP (▲)** or **DOWN (▼)** to select the VCR or DVD, and press **VOL (+)** or **(-)** to select “CH3, CH4”, “INPUT” or “OFF”.

→ CH3 ↔ CH4 ↔ INPUT ↔ OFF ←

Set model to the input in which your VCR or DVD is connected to. If done through RF, select either channel 3 or 4 to match the setting of the VCR or DVD.



UNIVERSAL PLUS

◆VCR: :CH3
DVD: :OFF

7 Press **MENU** to exit.





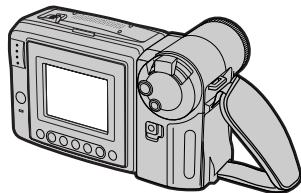
Using the Video and Audio Input Jacks

- Connecting video equipment for playback of video material.
 - When the television is connected to video equipment as shown below, the material being played back on the video equipment can be seen on the television screen.

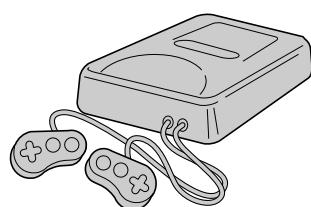
Connecting video device equipped with video output terminal.

CONNECTIONS

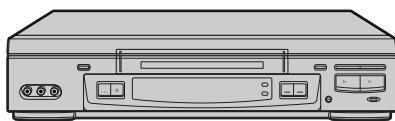
VIDEO EQUIPMENT



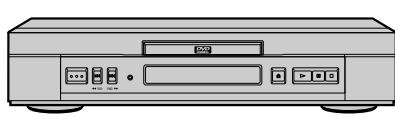
CAMCORDER



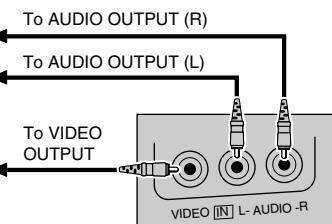
TV GAME



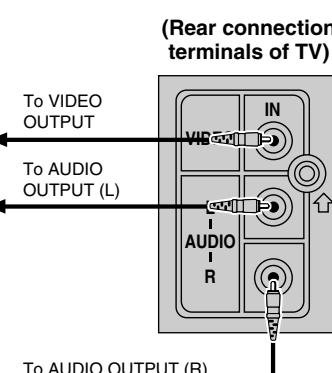
VCR



DVD



(Front connection terminals of TV)



(Rear connection terminals of TV)



Using the Video and Audio Input Jacks (Continued)

■ To watch video material playback.

- Press the Remote's **INPUT** to select VIDEO INPUT mode to which the video equipment you want to playback is connected.
- The external VIDEO INPUT mode will change as follows each time the **INPUT** is pressed.

→ AIR → INPUT
or
CABLE (Rear/
Front)

- INPUT mode can be selected by pressing either the **CH UP (▲)** on the TV remote control when the TV is set to the highest channel stored in memory, or by pressing the **CH DOWN (▼)** when it is set to the lowest channel.
- The front terminal overrides the rear terminal.

Note:

- When connecting video or audio equipment to the television, be sure that the power is turned off in order to prevent damage to either the television or the equipment being connected.
- It is the intent of SHARP that this product be used in full compliance with the copyright law of the United States and that prior permission be obtained from copyright owners whenever necessary.
- For detailed information on the connection and use of auxiliary equipment, refer to the instruction manuals of the equipment being used.
- The connection cords can be obtained from your local video store.





Operation of Remote Control

■ Universal Remote Control

With the purchase of your television set you also have received the latest innovation in remote control technology. With its easy-to-use push button keyboard, your Remote can control your television set and most infrared remote controlled VCRs, cable TV converters and DVDs as well.

Note:

- Depending on the model year produced, brand and type of VCR cable TV converter and DVD, some models may not be compatible with the remote control.
- Some brands of Cable TV converter Box may not enable channel selection until the ENTER is pressed.

Example:

When you select channel 24,
(1) Press REMOTE KEYPAD "2".
(2) Press REMOTE KEYPAD "4".
(3) Press ENTER.
For detailed information on the use of the Cable TV converter Box refer to their operating manuals.

■ Using Your Remote With Your TV

After installing the batteries, set the **CATV/DVD-TV/VCR** on the remote to the TV position. (If you can change the channel of the TV by pressing **CH UP (▲)** or **DOWN (▼)** on the Remote Control, it is the TV position.)



DVD/VCR POWER

Press to turn the VCR or DVD on and off.

PLAY ►

Press to playback a tape or disc.

REWIND ◀◀

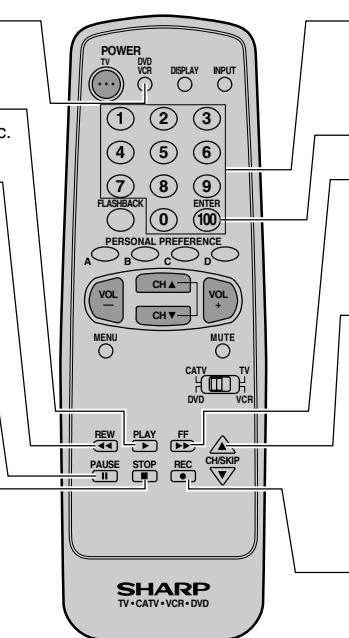
Press to rewind a tape or disc. For some VCRs or DVDs you may need to press STOP first, then REWIND.

PAUSE II

Press to temporary stop the tape or disc during playback or recording (VCR only). Press again to release Pause.

STOP ■

Press to stop the tape or disc.



REMOTE KEYPAD

Use to enter two-digit code numbers when identifying your VCR.

ENTER

FF ►►

Press to rapidly advance the tape or disc. For some VCRs or DVDs, you may need to press STOP first, then FF.

VCR CHANNEL UP (▲)/DOWN (▼)

Press to scan up or down through channels on the VCR.

DVD SKIP

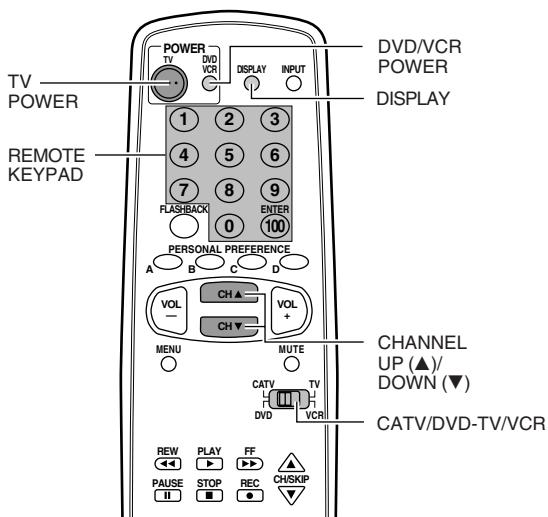
Press to jump forward to the beginning of the next chapter/track, or backward to the beginning of the current chapter/track, and automatically start to play that chapter/track.

RECORD ●

Press to begin recording. (VCR only)



Operation of Remote Control (Continued)



■ HOW TO IDENTIFY A VCR

The remote control may already be set to operate your VCR. Try this initial check to see if going on to the following "identify" section is necessary.

- (1) Slide **CATV/DVD-TV/VCR** switch to VCR.
- (2) Point remote towards VCR and press **DVD/VCR POWER**.
- (3) Does the remote turn the VCR ON and OFF?
 - If yes, the remote is ready to operate the VCR and no further steps are needed.
 - If no, continue to the "identify" section.

■ To Identify Your VCR – Direct Entry Method.

Use the following steps and list to quickly find the remote control code for your accessory VCR.

- First look up your VCR's remote control code number before going through the direct code entry steps control.
- If this procedure does not identify your accessory VCR, use the Search method of identification (described in the next section).

- (1) Slide **CATV/DVD-TV/VCR** switch to VCR.
- (2) Press and hold down **DISPLAY** and **CH DOWN (▼)** on your remote control. Then release both buttons.
- (3) Within ten seconds after releasing **DISPLAY** and **CH DOWN (▼)**, enter your VCR's two-digit remote control code number using **REMOTE KEYPAD** (refer to list).
 - The remote control is now ready to send commands to your VCR.

Some brands have more than one remote code listed, due to changes in the remote codes from early to later model years, or due to format differences (VHS/BETA). In such cases, you may have to try more than one code to find the code your VCR accepts.

Note:

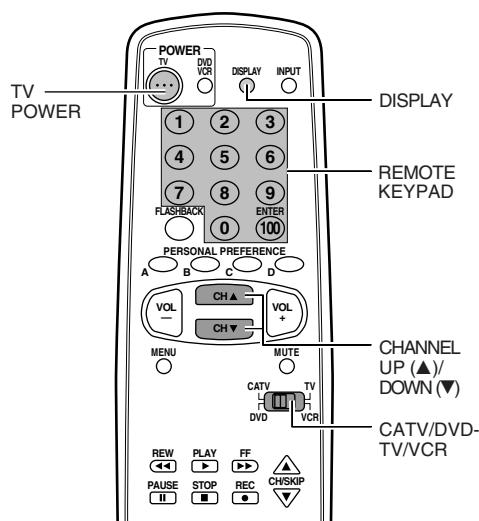
Depending on the model, year produced, brand, and type of VCR, some models may not be compatible with the remote control.

■ To Identify Your VCR – Search Method.

- (1) Slide **CATV/DVD-TV/VCR** switch on the remote to VCR.
- (2) Press **POWER** on the VCR to ON.
- (3) Stand at least six feet away from the front of the VCR. Point the remote towards the VCR. Hold down **DISPLAY** and **CH UP (▲)** at the same time. KEEP HOLDING THE BUTTONS DOWN.
- (4) Watch the Channel Number indicator on the VCR. Channel numbers will scan up when the VCR has been identified. Release **DISPLAY** and **CH UP (▲)** as soon as the channel numbers start to scan up. The VCR's remote control code number has been identified, and the remote is ready to operate the VCR.



Operation of Remote Control (Continued)



VCR BRAND	REMOTE CONTROL CODE NUMBER
Akai	25, 26, 37
Audio Dynamics	15, 22, 30
Broksonic	32
Canon	04
Capehart	34
Craig	10, 31
Curtis Mathis	04
Daewoo	34
DBX	15, 22, 30
Dynatech	29
Emerson	21, 32, 35
Fisher	09, 10, 11
Funai	28, 29
GE	04
Goldstar	24
Hitachi	06
Instant Replay	04
JC Penney	04, 06, 24, 30
JVC	15, 41, 42
Kenwood	14, 15
Lloyds	29
Magnavox	04, 05, 08
Magnin	31
Marantz	30
Memorex	04, 10, 24, 29
Minolta	06
Mitsubishi	17, 18, 39, 40
Montgomery Ward	02, 43
Multitech	29
NEC	15, 22, 30
Panasonic	04, 44
Pentax	05, 06
Philco	04, 05
Philips	04, 05, 08
Quasar	04
RCA	06, 07, 33
Realistic	01, 02, 10, 24
Samsung	23, 31
Sanyo	14, 10
Scott	20
Sears	06, 11, 24
Sharp	01, 02, 03
Shintom	36
Sony	12, 13, 38
Sound Design	29
Sylvania	04, 05, 08
Symphonic	29
Tatung	15
Teac	15, 29
Teknika	27, 29
Thomas	29
TMK	21
Toshiba	19, 20
Video Concepts	30
Yamaha	15, 29, 30
Zenith	16

TIPS ON IDENTIFYING YOUR VCR:

If your VCR model does not have the CHANNEL UP function on its remote control, it cannot be identified using the SEARCH method of identifying. For such models, please try the DIRECT ENTRY method of identifying.

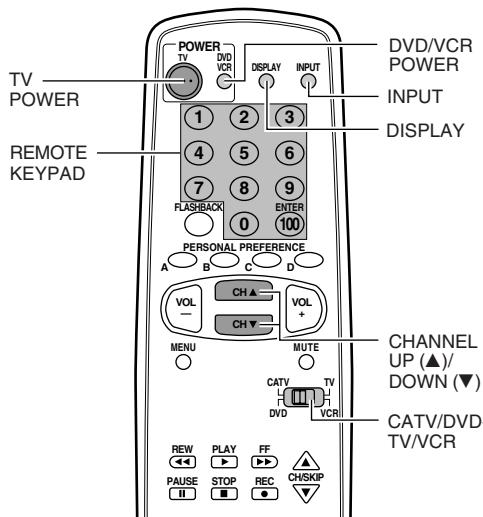
Be Patient: a minute or two can seem a lot longer when you're waiting for something to happen, but the code should be identified within 2 minutes. Remember, it is only a one-time set-up.

Be careful not to let the VCR scan more than five channels when the indicator starts to move up. If you continue holding down the **DISPLAY** and **CH UP (▲)** after five channel scans, the proper remote code can be passed up, and the two minutes identify cycle will have to be repeated.

If a channel change does not occur on the VCR within two minutes, read the identifying instructions again and repeat the steps. Should a channel change still not occur the remote will not operate with the desired VCR.



Operation of Remote Control (Continued)



■ HOW TO IDENTIFY A DVD

The remote control may already be set to operate your DVD. Try this initial check to see if going on to the following "identify" section is necessary.

- (1) Slide **CATV/DVD-TV/VCR** switch to DVD.
- (2) Point remote towards DVD and press **DVD VCR POWER**.
- (3) Does the remote turn the DVD ON and OFF?
 - If yes, the remote is ready to operate the DVD and no further steps are needed.
 - If no, continue to the "identify" section.

■ To Identify Your DVD – Direct Entry Method.

Use the following steps and list to quickly find the remote control code for your accessory DVD.

- First look up your DVD's remote control code number before going through the direct code entry steps control.

- (1) Slide **CATV/DVD-TV/VCR** switch to DVD.
- (2) Press and hold down **INPUT** and **CH DOWN (▼)** on your remote control. Then release both buttons.
- (3) Within ten seconds after releasing **INPUT** and **CH DOWN (▼)**, enter your DVD's two-digit remote control code number using **REMOTE KEYPAD** (refer to list).
 - The remote control is now ready to send commands to your DVD.

DVD BRAND	REMOTE CONTROL CODE NUMBER
Denon	02
JVC	09
Magnavox	04
Marantz	04
Mitsubishi	06
Panasonic	02
Philips	04
Pioneer	08
Proscan	03
RCA	03
Samsung	07
Sharp	01
Sony	05
Toshiba	04
Yamaha	02
Zenith	04

Note:

Depending on the model, year produced, brand, and type of DVD, some models may not be compatible with the remote control.



Operation of Remote Control (Continued)

■ HOW TO IDENTIFY A CABLE CONVERTER

■ To Identify Your Cable Converter – Direct Entry Method.

Use the following steps and list to quickly find the remote control code for your cable TV converter.

- First look up your converter's remote code number before going through the direct code entry steps below.
- If this procedure does not identify your converter, use the Search method of identification.

(1) Slide **CATV/DVD-TV/VCR** switch to CATV.

(2) Press and hold down **DISPLAY** and **CH DOWN (▼)** on your remote control. Then release both buttons.

(3) Within ten seconds after releasing **DISPLAY** and **CH DOWN (▼)**, enter your converter's two-digit code number using **REMOTE KEYPAD** (refer to list).

- The remote control is now ready to send commands to your converter.
- Some brands have more than one remote code listed due to changes in the remote codes from early to later model years. In such cases, you may have to try more than one code to find the code your converter accepts.

Note:

Depending on the model, year produced, brand, and type of CATV converter, some models may not be compatible with the remote control.

■ To Identify Your Cable Converter – Search Method.

(1) Slide **CATV/DVD-TV/VCR** switch to CATV.

(2) Press the **POWER** button on the cable converter to ON.

(3) Stand at least six feet away from the converter. Point the remote towards the converter. Hold down the **DISPLAY** and **CH UP (▲)** at the same time. **KEEP HOLDING THE BUTTONS DOWN.**

(4) Watch the Channel Number indicator on the converter. Channel numbers will scan up when the converter has been identified. Release the **DISPLAY** and **CH UP (▲)** as soon as the channel numbers start to scan up. The converter's remote control code number has been identified, and the remote is ready to operate the converter.

CATV CONVERTER BRAND	REMOTE CONTROL CODE NUMBER
Anvision	07, 08
Cable Star	07, 08
Eagle	08
General Instrument	04, 05, 15, 23, 24, 25, 30, 36
Jerrold	04, 05, 15, 23, 24, 25, 30, 36
Magnavox	07, 08, 19, 25, 28, 29, 32, 33, 40, 41
Oak Sigma	18
Panasonic	27, 39
Philips	07, 08, 19, 26, 28, 29, 32, 33, 40, 41
Pioneer	18, 20
Randtek	07, 08
RCA	27, 43
Scientific Atlanta	03, 22, 42
Sony	44
Viewstar	07, 08, 19, 26, 28, 29
Zenith	32, 33, 40, 41
	14

TIPS ON IDENTIFYING YOUR CABLE CONVERTER:

Be Patient: a minute or two can seem a lot longer when you're waiting for something to happen, but the code should be identified within 2 minutes. Remember, it is only a one-time set-up.

Be careful not to let the CATV converter scan more than five channels when the indicator starts to move up. If you continue holding down the **DISPLAY** and **CH UP (▲)** after five channel scans, the proper remote code can be passed up, and the two minutes identify cycle will have to be repeated.

If a channel change does not occur on the cable converter within two minutes, read the identifying instructions again and repeat the steps. Should a channel change still not occur, the remote will not operate with the desired converter.

Note:

Some satellite receivers can be operated by the REMOTE CONTROL. If you have a Satellite Receiver, you can use the above method to search for available channels.



Before Calling for Service

Check these items and see if you can correct trouble with a slight adjustment of the controls.

QUICK SERVICE CHECK LIST		PROBLEM	No Playback of VCR and Disk Player	No Picture or Sound from External Video/Audio Products	Remote Control Doesn't Work	Bars on Screen	Picture Distorted	Picture Rolls Vertically	No Color	Poor Reception on Some Channels	Weak Picture	Lines or Streaks in Picture	Ghosts in Picture	Picture Blurred	Sound OK, Picture Poor	Picture OK, Sound Poor	No Picture or Sound	Dark and Blank Picture	External Electrical Noise Interfering with TV's Operation	Color on Part of the Screen Appears Distorted
POSSIBLE REMEDY																				
Try a new channel, if OK, then possible station trouble.						X	X	X	X	X	X	X	X	X	X	X				
Is TV plugged in? Power at outlet?		X	X														X			
Is TV's POWER button on?		X															X			
Is antenna connected to terminal on the back of the set?							X	X	X	X	X	X	X				X			
If outside antenna is being used, check for broken wire.				X	X	X	X	X	X	X	X	X	X	X	X	X				
Check for local interference or external electrical noise.				X		X		X		X	X		X	X			X			
Turn off with POWER button and then turn it on after about a minute.		X														X				
Adjust COLOR control.									X											
Adjust PICTURE control.										X				X		X				
Check external Video/Audio products: look for loose/broken connection leads. (Refer to page 33)		X	X											X	X	X				
Check batteries of Remote Control.			X																	
Change Closed Caption mode to "OFF" / Energy Save mode to "OFF".																	X			
Unplug the TV and plug it in again after two minutes or longer.			X			X	X	X	X					X	X	X	X	X	X	X

Note: ➤

- When viewing in TEXT mode, if no TEXT broadcast is being received, the screen may become dark and blank. Should this occur, set the Closed Caption mode to "OFF".



(Dark and Blank Picture)

Calling for Service

For location of the nearest Sharp Authorized Service, or to obtain product literature accessories, supplies, or customer assistance, please call 1-800-BE-SHARP.





Antes de llamar al servicio de reparaciones

Verifique estos items para ver si usted mismo puede solucionar el problema.

LISTA DE COMPROBACIONES DE SERVICIO RAPIDO		PROBLEMA
POSIBLE SOLUCIÓN		
Pruebe con otro canal y si todo está bien, el problema puede ser de la emisora.		El video o el reproductor de discos de video no reproducen imágenes
Está conectado el televisor? Llega electricidad al tomacorrientes?	X X	El equipo de video/audio externo no produce imágenes ni sonido
Está conectado el interruptor del televisor?	X	El mando a distancia no funciona
Está conectado la antena al terminal del panel posterior del televisor?		Barras en la pantalla
Si utiliza una antena exterior, cerciórese de que el cable no esté dañado.		Imagen distorsionada
Compruebe si hay interferencia local.	X	La imagen se desplaza verticalmente
Desconecte el interruptor POWER y vuelva a conectarlo después de transcurrir un minuto.	X	No hay color
Ajuste el control de COLOR.		Mala recepción de algunos canales
Ajuste el control de MATIZ.		Imagen débil
Verifique los productos externos de Video/Audio, revise si hay fugas de conexiones sueltas o rotas.	X X	Fransas en la imagen
Compruebe el estado de las pilas del mando a distancia.	X	Imagen fantasma
Desactive (OFF) el modo CLOSED CAPTION / Desactive (OFF) el modo Ahorro de Energía (Energy Save).		Imagen borrosa
Desenchufe el televisor y vuelva a enchufarlo después de dos minutos o más.	X	Sonido adecuado, sonido malo
		No hay imagen ni sonido
		Imagen oscura y en blanco
		Interferencia de ruido eléctrico externo con el funcionamiento del televisor
		El color se ve distorsionado en parte de la pantalla

Nota:

- Cuando se ve en modo TEXTO sin recibir emisiones de TEXTO, la pantalla puede ponerse en blanco y negro. Si ocurriera ésto, ponga el modo CLOSED CAPTION en OFF.



(Imagen oscura y en blanco)



Specifications

MODEL	20R-S100	
Receiving System	NTSC	
Reception Channels		
AIR	VHF	2-13 ch
	UHF	14-69 ch
CATV	1-125 ch	
Channel Tuning	181-channel Reception PLL tuning system	
Antenna Input Impedance	VHF/UHF 75 ohm Unbalance	
Screen Size	20" Diagonally Measured	
Terminals	Audio/Video input x 2 (Front x 1, Rear x 1)	
Sound Output	1.5 W (RMS) x 2	
Power Source	AC 120 V, 60 Hz	
Power Consumption	74 W	
Dimensions	19 ¹³ / ₁₆ " (W) x 18 ³¹ / ₆₄ " (H) x 18 ²⁷ / ₃₂ " (D) [503.0 mm (W) x 469.0 mm (H) x 478.5 mm (D)]	
Weight (approx.)	42.3 lbs. (19.2 kg)	

- Design and specifications are subject to change without notice.





Limited Warranty

CONSUMER LIMITED WARRANTY

SHARP ELECTRONICS CORPORATION warrants to the first consumer purchaser that this Sharp brand product (the "Product"), when shipped in its original container, will be free from defective workmanship and materials, and agrees that it will, at its option, either repair the defect or replace the defective Product or part thereof with a new or remanufactured equivalent at no charge to the purchaser for parts or labor for the period(s) set forth below.

This warranty does not apply to any appearance items of the Product nor to the additional excluded item(s) set forth below nor to any Product the exterior of which has been damaged or defaced, which has been subjected to improper voltage or other misuse, abnormal service or handling, or which has been altered or modified in design or construction.

In order to enforce the rights under this limited warranty, the purchaser should follow the steps set forth below and provide proof of purchase to the servicer.

The limited warranty described herein is in addition to whatever implied warranties may be granted to purchasers by law. ALL IMPLIED WARRANTIES INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE ARE LIMITED TO THE PERIOD(S) FROM THE DATE OF PURCHASE SET FORTH BELOW. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Neither the sales personnel of the seller nor any other person is authorized to make any warranties other than those described herein, or to extend the duration of any warranties beyond the time period described herein on behalf of Sharp.

The warranties described herein shall be the sole and exclusive warranties granted by Sharp and shall be the sole and exclusive remedy available to the purchaser. Correction of defects, in the manner and for the period of time described herein, shall constitute complete fulfillment of all liabilities and responsibilities of Sharp to the purchaser with respect to the Product, and shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. In no event shall Sharp be liable or in any way responsible, for any damages or defects in the Product which were caused by repairs or attempted repairs performed by anyone other than an authorized servicer. Nor shall Sharp be liable or in any way responsible for any incidental or consequential economic or property damage. Some states do not allow the exclusion of incidental or consequential damages, so that above exclusion may not apply to you.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

Model Specific Section

Your Product Model Number & Description: 20R-S100, 20 inch Color Television (Be sure to have this information available when you need service for your Product.)

Warranty Period for this Product: One (1) year parts and (90) days labor. The warranty period continues for an additional one (1) year, for a total of two (2) years, with respect to the picture tube(s) in the Product for parts only. Labor and service are not provided free of charge for this additional period.

Additional Item(s) Excluded from Warranty Coverage (if any): Non-rechargeable batteries.

Where to Obtain Service: From a Sharp Authorized Servicer located in the United States. To find the location of the nearest Sharp Authorized Servicer, call Sharp toll free at 1-800-BE-SHARP.

What to Do to Obtain Service: Contact your Sharp Authorized Servicer to obtain in-home service for this Product. The Servicer will come to your home and if it is necessary to remove the Product, the Servicer will reinstall it. Be sure to have **Proof of Purchase** available.

TO OBTAIN ACCESSORY OR PRODUCT INFORMATION, CALL 1-800-BE-SHARP OR VISIT www.sharp-usa.com



SHARP®

SHARP ELECTRONICS CORPORATION

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